

EDUCATION RESEARCH AND DEVELOPMENT CENTER GRANTS

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INSTITUTE OF EDUCATION SCIENCES

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1. REQUEST FOR APPLICATIONS

The Institute of Education Sciences (Institute) invites applications that will contribute to its Education Research and Development Center program. For this competition, the Institute will consider only applications that meet the requirements outlined below under the section on Requirements of the Proposed Center.

2. PURPOSE OF THE CENTER PROGRAM

The Education Sciences Reform Act of 2002 requires that the Institute support not less than eight national research and development centers (centers), with each center covering not less than one of 11 topics of research listed in the statute (<http://www.ed.gov/policy/rschstat/leg/PL107-279.pdf>). The Congressional appropriation for the Institute for the 2004 fiscal year provides funds both to continue a number of existing centers and to begin awarding new centers. In this context, the Institute intends for the new centers to contribute significantly to the solution of education problems in the United States by developing, testing, and disseminating new approaches to improve teaching and learning, and ultimately, student achievement. Each of the centers will conduct a focused program of education research in its topic area. In addition, each center will conduct supplemental research within its broad topic area, and will work cooperatively with the Institute to disseminate rigorous evidence and information to educators and policy-makers as well as to provide national leadership in defining research and development directions within its topic area. The mission of the centers is to contribute to the production and dissemination of new knowledge and products that provide practical solutions to important education problems in the United States.

For the 2004 Center competition, the Institute invites applications for four National Education Research and Development Centers: (1) National Research and Development Center on Innovation in Education Reform; (2) National Research and Development Center on Rural Education; (3) National Research and Development Center on Improving Low Achieving Schools; and (4) National Research and Development Center on Postsecondary Education and Training. The Institute will fund no more than one center in each of these topic areas. In all of its activities, the Institute is committed to funding only high quality work. Hence, the Institute will make an award for a particular center only if at least one application for that center is deemed meritorious under peer review. In addition, applicants should note that the Institute will use a *cooperative agreement* mechanism that allows substantial Federal involvement in the activities undertaken with Federal financial support. The Institute intends to work cooperatively with grantees on the supplementary research projects, dissemination activities, and leadership activities as described below. The specific responsibilities of the Federal staff and project staff will be identified and agreed upon prior to the award.

3. BACKGROUND

The mission of the Institute includes developing and evaluating the effectiveness of programs, strategies, and products that are intended to increase student learning and achievement, and ensuring that information on what works and how to implement it is used by education practitioners and policy makers. One of the ways in which the Institute fulfills its mission is through its National Education Research and Development Centers.

The Institute's research and development center program is different from the Institute's topical grant programs in the following ways: (1) Topical research grants, such as those in Teacher Quality or Mathematics and Science Education (for information on these and other programs, see <http://www.ed.gov/programs/edresearch/applicant.html>), are to carry out a single program of research; whereas centers carry out both a single program of research as well as a variety of smaller scale supplemental projects that address unmet research needs within the center's broad topic area. (2) Topical research grants do not involve significant responsibility for disseminating

findings to practitioners and for providing national leadership in the research field; in contrast these tasks are central to centers. (3) Topical research grants typically have shorter durations and involve lower levels of funding than centers.

National Research and Development Centers

For its 2004 center competition, the Institute is interested in applications that offer the greatest promise in (1) contributing to the solution of a specific education problem within the center topics described below; (2) providing relatively rapid research and scholarship on supplemental questions that emerge within the center's topic area and that are not being addressed adequately elsewhere; (3) providing outreach and dissemination of findings of the Center, of the What Works Clearinghouse, and of other rigorous research studies and research syntheses on the center's topic to practitioners, policy makers, and technical assistance providers (e.g., comprehensive centers); and (4) providing national leadership within the center's topic by developing position papers, hosting meetings, and engaging in dialogue with researchers and practitioners in order to identify promising areas of research, development, and dissemination for the field.

4. REQUIREMENTS OF THE PROPOSED CENTER

For the 2004 center competition, applicants should submit *either* under Goal One (National Research and Development Center on Innovation in Education Reform) *or* Goal Two (National Research and Development Center on Rural Education) *or* Goal Three (National Research and Development Center on Improving Low Achieving Schools) *or* Goal Four (National Research and Development Center on Postsecondary Education and Training). Applicants should indicate the goal under which they are applying in both the abstract and the title of the proposal (e.g., Goal One: National Research and Development Center on Innovation in Education Reform).

Applications under Goal One (Innovation). Under Goal One, the Institute invites applications that focus on innovative practices in education reform. Innovation in education reform covers a broad spectrum of strategies for solving education problems. The Institute intends to fund a center under Goal One that plans and carries out a focused program of work in an area of innovation in education reform. Appropriate topics in innovation in education reform are listed below. Applicants are free to propose a focus other than those in the following examples:

- (1) *Innovative education reform strategies, programs, or policies that enable parents and students to exercise school choice.* Within this category, an application might focus on one or more education reform innovations that provide parents with the option to choose among schools for their children (e.g., voucher programs, charter schools, magnet schools, or choice among regular district-run schools).
- (2) *Innovative education strategies, programs, or policies that are designed to improve the quality of teachers.* In this category, applicants might address education reform innovations such as alternative routes to certification, compensation plans designed to motivate and reward teacher performance (e.g., differential pay plans, career ladders), and innovative practices to increase recruitment and retention of high quality teachers in high need schools.

Applications under Goal Two (Rural Education). Under Goal Two, the Institute invites applications that propose a focused program of research in rural education that will contribute to the solution of significant problems in rural education. Rural education covers a broad spectrum of issues. Appropriate topics in rural education are listed below. Applicants are free to propose a focus other than those in the following examples:

- (1) *Increasing availability of or access to low enrollment, advanced courses for rural high school students.* The Institute is interested in applications that focus on development and testing of strategies for increasing opportunities for students in rural high schools to take advanced placement courses and other upper level mathematics, science, foreign language, or English courses (e.g., calculus, physics, chemistry, fourth year of a foreign language). For example, strategies such as the use of technology (e.g., virtual classrooms) for making courses available to students in a network of rural schools are of interest.
- (2) *Improving teacher quality.* In this category, the Institute seeks applications that address problems faced by smaller rural schools in providing highly qualified teachers (e.g., those who have the equivalent of an academic major or who have passed a rigorous competency test in each of the core academic subjects they teach). Strategies that might be examined include using itinerant teachers who travel from school to school to teach specific courses; providing alternative routes for rural teachers to obtain instruction and pass examinations to become highly qualified; or using technology either to provide direct instruction to students from qualified teachers or to allow teachers to obtain the instruction they need to pass examinations to become highly qualified in specific content areas.

The Institute is also interested in applications that propose creative and cost effective means by which districts or consortia of districts can provide beginning rural teachers with opportunities to be mentored by master teachers on a regular and on-going basis or other types of induction programs designed to provide support for and improve the quality of teaching of new rural teachers. The Institute is interested in strategies that will enable rural districts to attract and maintain master teachers to provide this support and training to beginning teachers. Other appropriate topics would be increasing access to and opportunities for high quality teacher professional development for rural teachers.

- (3) *Improving administrative effectiveness.* The Institute is interested in applications that propose creative solutions to administrative problems faced by rural schools. For example, are there arrangements by which small districts might be functionally combined so that economies of scale can be realized, while retaining some local autonomy in areas such as use of school buildings, hiring of principals, construction of facilities, and other matters of high local interest? Are there ways to facilitate the sharing of professional development resources or other programs that would benefit students or staff in multiple districts?

Rural school principals are less likely to have managerial or administrative experience prior to becoming a principal than their counterparts in central city schools and urban

fringe/large town schools (U.S. Department of Education, National Center for Education Statistics, 1999-2000). Hence, the Institute is also interested in applications that address the training, professional development, and retention of rural administrators.

Applications under Goal Three (Low Achieving Schools). Under Goal Three, the Institute invites applications that propose to develop and test solutions to improving low achieving schools. In recent years, a number of approaches have been suggested as ways of improving low achieving schools, including (a) comprehensive school reform models; (b) alignment of learning standards, curriculum content, instruction, and assessment; and (c) recruitment and retention of high quality teachers. Appropriate topics in improving low achieving schools are listed below. Applicants are free to propose a focus other than those in the following examples:

- (1) *Comprehensive school reform models.* In this category, the Institute is particularly interested in applications that propose to compare the effects of different approaches to comprehensive school reform, or to compare the effects of well-evaluated and widely implemented single models of comprehensive school reform to approaches that are more exclusively focused on curriculum and instruction. What, for instance, are the relative benefits and costs in terms of implementation and student outcomes of adopting a comprehensive school reform model such as *Success for All* or *Direct Instruction* or *Core Knowledge* compared with a focus on delivering well-implemented curriculum packages in reading and mathematics that are aligned with state standards? Such research would have the goal of providing decision-makers with results that would inform choices among widely available approaches to reforming low achieving schools.
- (2) *Alignment of goals, curriculum and instruction, and assessment.* Under this topic, the Institute encourages applications for centers that propose to compare the effects of different approaches for aligning learning standards, curriculum content, instruction, and assessment on improving the teaching and learning environment and improving student learning and achievement and to address issues related to the implementation of strategies for such alignments.
- (3) *Recruitment and retention of high quality teachers.* In this category, the Institute is interested in applications that propose a focused program of research on the recruitment and retention of high quality teachers; including evaluations comparing the efficacy of different approaches to the recruitment and retention of high quality teachers in low achieving schools (i.e., how can districts best attract high quality teachers to work in low achieving schools).

Applications under Goal Four (Postsecondary Education). Under Goal Four, the Institute invites applications that propose a focused program of research designed to provide solutions to specific challenges in postsecondary education. Appropriate topics in postsecondary education are listed below. Applicants are free to propose a focus other than those in the following examples:

- (1) Postsecondary developmental (i.e., remedial or pre-baccalaureate) mathematics, reading, and writing interventions. In the fall of 2000, 28 percent of the entering college freshmen enrolled in at least one developmental course (U.S. Department of Education, 2003). Hence, the Institute is interested in providing post-secondary institutions with trustworthy information on the efficacy of developmental mathematics, reading, and writing courses or interventions for enabling under-prepared students to develop the skills they need to succeed in college-level courses.
- (2) Improving the preparation of elementary education teachers for teaching mathematics and science. In this category the Institute is interested in applications for centers that focus on different ways of improving the preparation of new elementary education teachers for teaching mathematics and science. Center proposals in this category must be broader than what would be funded under the Institute's current Teacher Quality Education Research Grants program (<http://www.ed.gov/programs/edresearch/applicant.html>) in which applicants could propose to evaluate the effectiveness of a single approach to preparing elementary education teachers for teaching mathematics and science (e.g., requiring a specific sequence of college mathematics courses). The Institute expects center proposals, for example, to compare the effects of different theoretically-based approaches to preparing elementary teachers to teach mathematics and science.

Requirements applying to all center proposals

Justification of the center focus. For all goals, applicants must first specify the goal to which they are applying and the specific focus of the center. Under Goal One, for example, applicants might propose that the National Education Research and Development Center on Innovation in Education Reform focus on charter schools as an approach to implementing school choice for the purpose of improving the quality of schools. Under Goal Two, as another example, applicants might propose that the National Education Research and Development Center on Rural Education focus on strategies for increasing availability of low enrollment advanced courses in rural high schools.

Second, applicants must provide a compelling rationale for having the center focus on the selected education problem and approach to problem solution. For example, under Goal Three, applicants would justify having the National Education Research and Development Center on Improving Low Achieving Schools target the chosen approach to improving low-achieving schools (e.g., research and development of strategies for the recruitment and retention of high quality teachers). Applicants should articulate the *practical* importance of the approach. The critical question is whether the approach or strategy is likely to improve the learning environment in ways that will produce educationally meaningful effects on outcomes that are important to educational achievement (e.g., grades, achievement test scores) and, therefore, are of interest to parents, teachers, and education decision makers. For example, under Goal Four, applicants might propose to develop and evaluate specific developmental mathematics and English composition courses that could be delivered either through traditional lecture classes or through independent computer-based tutorials. Such applicants would need to provide a compelling rationale for their proposed interventions (e.g., what is the theoretical foundation for

the proposed intervention; what empirical evidence suggests that the proposed intervention would improve student learning if used). In this example, to address the *practical* importance of the proposed intervention, applicants might present an argument that the proposed intervention is sufficiently comprehensive so that students completing the intervention are likely to have gained the knowledge and skills needed to succeed in college level courses and that the proposed interventions are cost-effective means for achieving this goal.

In addition to addressing the practical importance of the strategy, the applicant should describe (a) any empirical evidence that suggests that the approach is likely to be effective and (b) any evidence that rigorous evaluation of the approach will have policy implications because, for example, districts have begun to adopt this practice.

Focused program of research. The most important consideration in the competitive review of proposals will be the applicant's articulation of its focused program of research and development, including well-specified goals, a detailed research methods and data analysis plan, a timetable for accomplishing the research, and the specific outcomes of the program of research. The Institute is most interested in projects that will provide rigorous evidence of the effectiveness of strategies intended to solve specific education problems, and particularly the relative effectiveness and costs of contrasting approaches to problem solution.

When the proposed focused program of research and development has the goal of producing or identifying products or approaches that have effects on student or teacher outcomes, experimental designs using random assignment are strongly preferred. Applicants proposing to use other approaches, such as well-designed quasi-experiments with matched groups and statistical controls, or correlational studies of large databases should provide a compelling rationale for why random assignment is impossible or inappropriate and should carefully justify their approach in terms of the ability to advance knowledge of what works and what does not, for whom, under what circumstances.

A well-designed quasi-experiment is one that reduces substantially the potential influence of selection bias on membership in the intervention or comparison group. This involves demonstrating equivalence between the intervention and comparison groups at program entry on the variables that are to be measured as program outcomes (e.g., math achievement test scores), or obtaining such equivalence through statistical procedures such as propensity score balancing or regression. It also involves demonstrating equivalence or removing statistically the effects of other variables on which the groups may differ and that may affect intended outcomes of the program being evaluated (e.g., demographic variables, experience and level of training of teachers, motivation of parents or students). Finally, it involves a design for the initial selection of the intervention and comparison groups that minimizes selection bias or allows it to be modeled.

Well-designed correlational analyses involve large longitudinal databases that include information on growth over time in the skills and knowledge of individual students as connected to their educational experiences. Although even the most sophisticated of such analyses on the most detailed of datasets cannot support strong causal conclusions in terms of what works, appropriately designed analyses of the appropriate data can often test and discard certain models

of causal effects as unlikely. If the results of such analyses are to reduce the need to conduct expensive field trials of interventions that are unlikely to be effective, they would be a worthwhile investment.

Observational, survey, or qualitative methodologies are encouraged as a complement to experimental methodologies to assist in the identification of factors that may explain the effectiveness or ineffectiveness of the intervention. Proposals should provide research designs that permit the identification and assessment of factors impacting the fidelity of implementation.

Although student outcome data would be ideal, the Institute recognizes that in some cases, improvement in student achievement scores will accrue slowly as a result of systemic changes (e.g., incentives for hiring high quality teachers may slowly change the quality of instruction offered at the school and through that change, improve the overall student achievement level). In such cases, researchers should propose to measure mediators or proximal outcomes (e.g., instructional practice) known to predict student achievement and provide a cogent rationale detailing the hypothesized relation among the systemic strategy, the proximal outcome(s), and student achievement. Mediating and moderating variables that are measured in the intervention condition that are also likely to affect outcomes in the comparison condition should be measured in the comparison condition (e.g., teacher turnover rate, teacher experience/time in position).

Applicants should propose studies to determine the degree to which the proposed strategies are effective when implemented in typical education delivery settings (i.e., not by researchers or developers of the intervention). Researchers should attend to questions of implementation (e.g., how best to train and support personnel who will implement the strategy). The strategies, programs, and policies that are the focus of the evaluations vary in specificity in terms of what is actually implemented. For example, a mechanism allowing charter schools in districts may permit wide variation in what constitutes a charter school (e.g., in terms of school organization, curricula, instructional practices, selection of teachers). That is, what makes a school a charter school is that the school is publicly funded and is held accountable for achieving the goals specified in its own plan or charter in return for waiving compliance with state and local regulations. However, the particular "ingredients" or components of the school may vary widely across charter schools. This variation poses significant challenges to the evaluation of education practices. For whatever approach or practice applicants choose to evaluate, applicants must describe in detail how the practice is manifested across, for example, schools or districts. If the innovative practice is prescriptive in what is to be implemented, applicants must address fidelity of the implementation in their evaluation. If the approach or practice by its nature allows variability in what is to be implemented, applicants must address how they will document this variability and take it into account in the design and analysis of their evaluation. Applicants might choose to restrict the variability in the practice and evaluate, for example, only charter schools that follow a particular model that prescribes such aspects as the organization, management, curricula, and hiring practices of the school. For the evaluation to be useful to education practitioners and decision-makers, the researchers must be clear in describing what the approach or strategy is, how it was implemented, and the conditions under which the strategy was implemented (e.g., population, type of school, type of teachers).

Along with the description of the focused program of research, applicants should include a clear timeline for the activities in their focused program of research. Note, if the applicant is developing new interventions, it is reasonable for the applicant to conduct small preliminary studies (e.g., a short-term pre-test/post-test study with a reasonable comparison group) to obtain preliminary evidence that the intervention as it is being developed is likely to work or evidence that aspects of the intervention need modification prior to conducting a test of efficacy. However, by the end of the project period, applicants are expected to have completed one or more tests of the efficacy of the intervention they have developed. Ideally, tests of the effectiveness of the scaled-up intervention would also be conducted.

Whatever strategies or programs the center evaluates, the center should include an analysis of the cost of implementing the programs.

Competitive applicants will have research teams that collectively demonstrate expertise in whatever type of education practice is examined (e.g., school organization, educational technology, distance learning), implementation and analysis of results from the research design that will be employed, and working with education delivery settings.

Because all applicants must propose to conduct research projects in education delivery settings, applicants must develop relationships with schools (or other education delivery settings). When the plans for the first year of grant activities include work to be conducted in schools or other education delivery settings, applicants are required to document the availability and cooperation of the schools or other education delivery settings that will be required to carry out that work via a letter of support from the education organization(s). When work in education settings is not planned until the second year of the grant or after an appreciable period of start-up activities and arrangements with research sites are to be developed during that start-up period, applicants are required to document that they have the capacity and experience to obtain such cooperation and to describe the steps they will take to obtain it.

Supplementary studies. As part of their program of research, applicants are expected to propose smaller research projects that speak to other issues that are important within the context of the broad topic of the center. For example, under rural education applicants might propose a focused program of research on methods to improve teacher quality. They might also propose a smaller study to collect information on the nature and extent of the use of distance-learning methods to provide advanced coursework in smaller rural schools. The Institute intends to work cooperatively with center grantees to select and design supplementary studies as needed to respond to pressing policy and practice needs within the topic covered by the center. In that context, the Institute does not expect applicants to provide highly detailed research plans for these studies. It is sufficient to provide two or three examples of supplementary studies the applicant believes might be useful to undertake, including a short rationale explaining the need for the proposed study and a short description of the type of research approach that would be used.

Dissemination. As part of the center activities, applicants are expected to develop new products (e.g., manuals, guides, booklets, and other materials for the purpose of dissemination to practitioner and policy audiences) and to engage in dissemination and outreach activities.

Through the cooperative agreement, the Institute intends to work with center grantees to develop and plan these activities. Consequently, the Institute does not expect applicants to provide highly detailed plans for these activities. It is sufficient to provide two or three examples of the types of activities the applicant believes might be useful to undertake, including a short rationale justifying the need for the proposed activity and a description of the applicant's capacity for conducting such projects (e.g., experience developing manuals and guides for practitioners).

Leadership. As part of the center activities, applicants are expected to provide national leadership within the center's topic area by developing position papers, hosting meetings, and engaging in dialogue with researchers and practitioners in order to identify promising areas of research, development, and dissemination for the field. The Institute intends to work cooperatively with center grantees in the development and planning of such activities. In that context, the Institute does not expect applicants to provide highly detailed plans for the leadership activities. It is sufficient to provide two or three examples of the types of activities the applicant believes might be useful to undertake, including a short rationale justifying the need for the proposed activity and a description of the applicant's capacity for conducting such projects.

5. APPLICATIONS AVAILABLE

Application forms and instructions for the electronic submission of applications will be available for this program of research no later than March 11, 2004, from the following web site:

<https://ies.constellagroup.com>

6. MECHANISM OF SUPPORT

The Institute intends to award center grants in the form of cooperative agreements for periods up to 5 years pursuant to this request for applications.

7. FUNDING AVAILABLE

Typical awards will be in the range of \$1,000,000 to \$2,000,000 (total cost) per year for 5 years. The size of the award depends on the scope of the activities.

The Institute expects the budget for supplementary studies, dissemination activities, leadership activities and any administrative activities not included in the focused program of research to be no less 15 percent and no more than 40 percent of the total direct cost per year with the remainder of the resources allocated to the focused program of research.

Although the plans of the Institute include the education research and development center program, awards pursuant to this request for applications are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications. The Institute will fund only one center under each goal. However, because the Institute is committed to funding only high quality work, the Institute will make an award for a particular center only if at least one application for that center is deemed meritorious under peer review.

8. ELIGIBLE APPLICANTS

Applicants that have the ability and capacity to conduct scientifically valid research are eligible to apply. Eligible applicants include, but are not limited to, non-profit and for-profit organizations and public and private agencies and institutions, such as colleges and universities.

9. SPECIAL REQUIREMENTS

Activities supported through this program must be relevant to U.S. schools. Recipients of awards are expected to publish or otherwise make publicly available the results of the work supported through this program.

Applicants should budget for a two-day kick-off meeting in Washington, DC, with other grantees and Institute staff, in the fall of 2004. Key center personnel are expected to describe plans and timelines for activities for the center. In addition to the kick-off meeting, towards the end of Year 1 and each subsequent year, grantees will meet with other grantees and Institute staff for a two-day meeting, during which key center personnel will report on the progress and activities of the center

Prior to the annual meeting, grantees will submit a report describing accomplishments and activities, and explaining any deviations from the proposed plans and timeline for the relevant year. Through the terms of the cooperative agreement, grantees will work with the Institute to plan activities related to (a) supplementary research; (b) dissemination and outreach (including development of specific products, such as manuals, booklets, and guides); and (c) leadership in the field (see description in Section 4: Requirements of the Proposed Center).

The Institute anticipates that the majority of the research will be conducted in field settings and many of the other activities will be conducted off-campus. Hence, the applicant is reminded to apply its negotiated off-campus indirect cost rate, as directed by the terms of the applicant's negotiated agreement.

Research applicants may collaborate with for-profit entities that develop, distribute, or otherwise market products or services that can be used as interventions or components of interventions in the proposed research activities. Involvement of the developer or distributor must not jeopardize the objectivity of the evaluation. Applications from or collaborations including such organizations should justify the need for Federal assistance to undertake the evaluation of programs that are marketed to consumers and consider cost-sharing part of the cost of the evaluation.

10. LETTER OF INTENT

A letter indicating a potential applicant's intent to submit an application is optional, but encouraged, for each application. The letter of intent must be submitted electronically by the date listed at the beginning of this document, using the instructions provided at the following web site:

<https://ies.constellagroup.com>

The letter of intent should include a descriptive title, the goal which the application will address, and brief description of the proposed focused program of research (no longer than one page, single-spaced, using a 12 point font without compression or kerning); the name, institutional affiliation, address, telephone number and e-mail address of the principal investigator(s); and the name and institutional affiliation of any key collaborators. The letter of intent should indicate the duration of the proposed project and provide an estimated budget request by year, and a total budget request. Although the letter of intent is optional, is not binding, and does not enter into the review of subsequent applications, the information that it contains allows Institute staff to estimate the potential workload to plan the review.

11. SUBMITTING AN APPLICATION

Applications must be submitted **electronically by 8:00 p.m. Eastern time** on the application receipt date, using the ED standard forms and the instructions provided at the following web site:

<https://ies.constellagroup.com>

Application forms and instructions for the electronic submission of applications will be available for this program of research no later than March 11, 2004. Potential applicants should check this site for information about the electronic submission procedures that must be followed and the software that will be required.

The application form approved for this program is OMB Number 1890-0009.

12. CONTENTS AND PAGE LIMITS OF APPLICATION

All applications and proposals for Institute funding must be self-contained within specified page limitations. Internet Web site addresses (URLs) may not be used to provide information necessary to the review because reviewers are under no obligation to view the Internet sites.

Sections described below, and summarized in Table 1, represent the body of a proposal submitted to the Institute and should be organized in the order listed below. Sections a (ED 424) through g (Budget Narrative) are required parts of the proposal. Section h (Appendix A) is optional unless the applicant is required to submit letters of cooperation from schools because the applicant intends to conduct field research during the first year of the grant. In such cases, letters of cooperation must be included in Appendix A. Section i is optional. All sections must be submitted electronically.

Observe the page number limitations given in Table 1.

Table 1

Section	Page Limit	Additional Information
a. Application for Federal Education Assistance (ED 424)	n/a	
b. Budget Information Non-Construction Programs (ED 524)	n/a	
c. Proposal Abstract	1	
d. Center Program Narrative	30	Figures, charts, tables, and diagrams may be included in Appendix A
e. Reference List	no limit	Complete citations, including titles and all authors
f. Curriculum Vita of Key Personnel	3 per person	No more than 3 pages for each key person
g. Budget Narrative	no limit	
h. Appendix A	15	
i. Appendix B	10	

- a. *Application for Federal Education Assistance (ED 424)*. The form and instructions are available on the website.
- b. *Budget Information Non-Construction Programs (ED 524)*. The application must include a budget for each year of support requested and a cumulative budget for the full term of requested Institute support. Applicants must provide budget information for each project year using the ED 524 form (a link to the form is provided on the application website at <https://ies.constellagroup.com>). The ED 524 form has three sections: A, B, and C.

Instructions for Sections A and B are included on the form. Instructions for Section C are as follows. Section C must provide an itemized budget breakdown for each project year, for each budget category listed in Sections A and B. Section C may be submitted as an Excel spreadsheet with an itemized listing of project costs accompanying the budget narrative uploaded as part of the PDF file. For personnel, include a listing of percent effort for each project year, as well as the cost. Section C should also include a breakdown of the fees to consultants, a listing of each piece of equipment, itemization of supplies into separate categories, and itemization of travel requests (e.g. travel for data collection, conference travel, etc.) into separate categories. Any other expenses should be itemized by category and unit cost.

- c. *Proposal abstract*. The abstract is limited to 3500 characters (including spaces, approximately one page, single-spaced) and must include: (1) The title of the project; (2) the RFA goal under which the applicant is applying; and brief descriptions of (3) the potential contribution the proposed center will make to the solution of an education problem; and (4) the focused program of research that the proposed center would conduct.

- d. *Center program narrative.* Incorporating the requirements outlined under the section on Requirements of the Proposed Center, the *center program narrative* provides the majority of the information on which reviewers will evaluate the proposal and should include the following sections (1 through 7) in the order listed:

(1) Justification of the Center Focus (suggested: 2-3 pages)

Identify the education problem that will be addressed by the study; specify the strategy or strategies that will be developed and evaluated to address the identified problems and that will be the focus of the center; and describe the contribution the center will make to a solution to the identified education problem. Provide a compelling rationale justifying the need for having the center address this particular approach to solving the identified education problem, giving attention to the practical importance of the approach or strategy, any empirical evidence suggesting that the approach is likely to be effective, and any evidence that rigorous evaluation of the proposed approach will have policy implications.

(2) Focused Program of Research (suggested: 15-18 pages)

Provide a clear and detailed explanation of the focused program of research, including well-specified goals, detailed research methods and data analysis plans, a timetable for accomplishing the research, and the specific outcomes of the focused program of research.

For projects in which an intervention or strategy is proposed, include a description of the intervention along with the conceptual rationale and empirical evidence supporting the intervention. (Applicants proposing an intervention may use Appendix B to include up to 10 pages of examples of curriculum material, computer screens, or further description of the intervention.)

In the description of the research and evaluation studies, applications must (a) include clear, concise hypotheses or research questions; (b) present a clear description of, and a rationale for, the sample or study participants, including justification for exclusion and inclusion criteria and, where groups or conditions are involved, strategies for assigning participants to groups; (c) provide clear descriptions of, and rationales for, data collection procedures and measures to be used; and (d) present a detailed data analysis plan that justifies and explains the selected analytic strategy, shows clearly how the measures and analyses relate to the hypotheses or research questions, and indicates how the results will be interpreted. Quantitative studies should, where sufficient information is available, include a power analysis to provide some assurance that the sample is of sufficient size.

(3) Supplementary Studies (suggested 2-3 pages)

Provide short descriptions of two or three examples of supplementary studies, including a short rationale explaining the need for each proposed study and a short description of the type of research approach that would be used.

- (4) Dissemination Activities (suggested 2-3 pages)
Provide short descriptions of two or three examples of dissemination activities, including a short rationale justifying the need for each proposed activity and a short description of the applicant's capacity for conducting such projects (e.g., experience developing materials for practitioners, designing websites).
- (5) Leadership Activities (suggested 2-3 pages)
Provide short descriptions of two or three examples of leadership activities, including a short rationale justifying the need for each proposed activity and a short description of the applicant's capacity for conducting such projects (e.g., experience organizing small conferences).
- (6) Management and Institutional Commitment:(suggested: 2-3 pages)
Describe plans and procedures for the overall management of the center. These plans should include details of procedures for coordinating with schools and districts or other education delivery settings involved in the projects of the center. Provide a description of the resources available to support the center at the applicant's institution and in the field settings in which the research will be conducted.
- (7) Personnel (suggested: 2-3 pages)
Include brief descriptions of the qualifications of key personnel, including their proposed role in the center and the time allotted to center responsibilities. Information on personnel should also be provided in their curriculum vitae. Applicants should describe duties of personnel with respect to the proposed center's research, dissemination, and leadership activities and to the management of the center.

The center program narrative is limited to the equivalent of 30 pages, where a “page” is 8.5 inches x 11 inches, on one side only, with 1 inch margins at the top, bottom, and both sides. Single space all text in the center program narrative and in Appendix B. To ensure that the text is easy for reviewers to read and that all applicants have the same amount of available space in which to describe their projects, *applicants must adhere to the type size and format specifications for the entire research narrative and Appendix B, including footnotes*. See frequently asked questions available at <https://ies.constellagroup.com>.

Conform to the following four requirements:

- (1) The height of the letters must not be smaller than 12 point;
- (2) Type density, including characters and spaces, must be no more than 15 characters per inch (cpi). For proportional spacing, the average for any representative section of text must not exceed 15 cpi;
- (3) No more than 6 lines of type within a vertical inch;
- (4) Margins, in all directions, must be at least 1 inch.

Applicants should check the type size using a standard device for measuring type size, rather than relying on the font selected for a particular word processing/prINTER combination. Figures, charts, tables, and figure legends may be smaller in size but must be readily legible. The type size used must conform to all four requirements. Small type size makes it difficult for reviewers to read the application. Adherence to type size and line spacing requirements is also necessary so that no applicant will have an unfair advantage, by using small type, or providing more text in their applications. **Note, these requirements apply to the PDF file as submitted.** As a practical matter, applicants who use a 12 point Times New Roman without compressing, kerning, condensing or other alterations typically meet these requirements.

Use only black and white in graphs, diagrams, tables, and charts. The application must contain only material that reproduces well when photocopied in black and white.

The 30-page limit does *not* apply to the ED 424 form, the one-page abstract, the ED 524 form and budget narrative justification, the curriculum vitae, or reference list. Reviewers are able to conduct the highest quality review when applications are concise and easy to read, with pages numbered consecutively.

- e. *Reference list.* Please include complete citations, including titles and all authors, for literature cited in the research narrative.
- f. *Brief curriculum vita of key personnel.* Abbreviated curriculum vita should be provided for the principal investigator(s) and other key personnel. Each *vita* is limited to 3 pages and should include information sufficient to demonstrate that personnel possess training and expertise commensurate with their duties. The curriculum vita must adhere to the margin, format, and font size requirements described in the center program narrative section.
- g. *Budget narrative justification.* The *budget narrative justification* must provide sufficient detail to allow reviewers to judge whether reasonable costs have been attributed to the project. It must include the time commitments and brief descriptions of the responsibilities of key personnel. *The justification should correspond to the itemized breakdown of project costs that is provided in Section C.* For consultants, the narrative should include the number of days of anticipated consultation, the expected rate of compensation, travel, per diem, and other related costs. A justification for equipment purchase, supplies, travel and other related project costs should also be provided in the budget narrative for each project year outlined in Section C. For applications that include contracts for work conducted at collaborating institutions, applicants should submit an itemized budget spreadsheet for each contract for each project year, and the details of the contract costs should be included in the budget narrative.

The Institute expects that the majority of activity under these awards will be conducted off campus. Institutions are reminded to apply the off campus indirect cost rate as required by their negotiated indirect cost rate agreements. In the budget narrative, applicants should

explain their calculation of indirect costs in light of the activity to be conducted off campus.

- h. *Appendix A*. In *Appendix A*, the applicant may include any figures, charts, or tables that supplement the research text, and letters of agreement from all partners (e.g., schools) and consultants. Letters of agreement should include enough information to make it clear that the author of the letter understands the nature of the commitment of time, space, and resources to the research project that will be required if the application is funded. Letters of agreement from schools are not required for activities that will begin after the first year of the grant or after an extended start-up period that will be devoted in part to obtaining cooperation from schools or other education delivery settings. The appendix is limited to 15 pages.
- i. *Appendix B* (optional). For proposals in which an intervention is proposed, applicants may include in *Appendix B* up to 10 pages of examples of curriculum material, computer screens, or further description of the intervention.

Please note that applicants selected for funding will be required to submit the following certifications and assurances before a grant is issued:

- (1) SF 424B - Assurances-Non-Construction Programs
- (2) ED-80-0013 - Certification Regarding Lobbying, Debarment, Suspension and other Responsibility Matters; and Drug-Free Workplace Requirements
- (3) ED 80-0014 (if applicable) - Lower Tier Certification
- (4) SF-LLL (if applicable) - Disclosure of Lobbying Activities

13. APPLICATION PROCESSING

Applications must be received by **8:00 p.m. Eastern time** on the application receipt date listed in the heading of this request for applications. Upon receipt, each application will be reviewed for completeness and for responsiveness to this request for applications. Applications that do not address specific requirements of this request will be returned to the applicants without further consideration.

14. PEER REVIEW PROCESS

Applications that are complete and responsive to this request will be evaluated for scientific and technical merit. Reviews will be conducted in accordance with the review criteria stated below by a panel of scientists who have substantive and methodological expertise appropriate to the program of research and request for applications.

Each application will be assigned to at least two primary reviewers who will complete written evaluations of the application, identifying strengths and weaknesses related to each of the review criteria. Primary reviewers will independently assign a score for each criterion, as well as an overall score, for each application they review. Based on the overall scores assigned by primary reviewers, an average overall score for each application will be calculated and a preliminary rank order of applications prepared before the full peer review panel convenes to complete the review of applications.

The full panel will consider only those applications deemed to have the highest merit, as reflected by the preliminary rank order, generally the top 30, and the most competitive proposals will be discussed and scored.

15. REVIEW CRITERIA FOR SCIENTIFIC MERIT

The goal of the centers is to contribute to the solution of education problems and to produce and disseminate reliable information about the education practices that support learning and improve academic achievement and access to education for all students. Reviewers will be expected to assess the following aspects of an application in order to judge the likelihood that the proposed center will have a substantial impact on the pursuit of that goal. Information pertinent to each of these criteria is also described above in the section on Requirements of the Proposed Center and in the description of the center program narrative, which appears in the section on Contents and Page Limits of Application.

Significance	Does the applicant present a strong rationale for the center? Does the applicant provide a strong justification for the focus of the center? Does the applicant make a compelling case for the potential contribution of the center to the solution of an education problem?
Plans for Focused Program of Research	Does the applicant present (a) a strong rationale for the focused program of research; (b) clear hypotheses or research questions; (c) clear descriptions of and strong rationales for the sample, the measures, data collection procedures, and research design; and (d) a detailed and well-justified data analysis plan? Does the research plan meet the requirements described in the section on the Requirements of the Proposed Center and in the description of the center program narrative in the section on Contents and Page Limits? Is the research plan appropriate for answering the research questions or testing the proposed hypotheses?
Other Activities	Does the content of the examples of proposed supplementary studies, dissemination activities, and leadership activities and the description of the applicant's capacity to conduct such projects suggest that the applicant has the ideas, experience, and capability to successfully carry-out such projects in cooperation with the Institute?
Personnel	Does the description of the personnel make it apparent that the principal investigator, project director, and other key personnel possess the training and experience and will commit sufficient time to competently conduct the proposed research, carry out other center responsibilities (e.g., dissemination and leadership activities), and manage the proposed center?

Resources Does the applicant have the facilities, equipment, supplies, and other resources required to support the proposed activities? Do the commitments of each partner show support for the implementation and success of the proposed center activities?

16. RECEIPT AND REVIEW SCHEDULE

Letter of Intent Receipt Date: March 4, 2004

Application Receipt Date: May 27, 2004, 8:00 p.m. Eastern time

Earliest Anticipated Start Date: September 1, 2004

17. AWARD DECISIONS

The following will be considered in making award decisions:

Scientific merit as determined by the peer review

Responsiveness to the requirements of this request

Performance and use of funds under a previous Federal award

Contribution to the overall program of research described in this request

Availability of funds

18. INQUIRIES MAY BE SENT TO:

For Goal One: National Research and Development Center on Innovation in Education Reform

Dr. Michael Wiatrowski

Institute of Education Sciences

555 New Jersey Avenue, NW

Washington, DC 20208

Email: Michael.Wiatrowski@ed.gov

Telephone: (202) 219-2229

For Goal Two: National Research and Development Center on Rural Education

Dr. Ram Singh

Institute of Education Sciences

555 New Jersey Avenue, NW

Washington, DC 20208

Email: Ram.Singh@ed.gov

Telephone: (202) 219-2025

For Goal Three: National Research and Development Center on Improving Low Achieving Schools

Dr. David Sweet
Institute of Education Sciences
555 New Jersey Avenue, NW
Washington, DC 20208

Email: David.Sweet@ed.gov
Telephone: (202) 219-1748

For Goal Four: National Research and Development Center on Postsecondary Education and Training

Dr. Jon Oberg
Institute of Education Sciences
555 New Jersey Avenue, NW
Washington, DC 20208

Email: Jon.Oberg@ed.gov
Telephone: (202) 208-7281

19. PROGRAM AUTHORITY

20 U.S.C. 9501 *et seq.*, the “Education Sciences Reform Act of 2002,” Title I of Public Law 107-279, November 5, 2002. This program is not subject to the intergovernmental review requirements of Executive Order 12372.

20. APPLICABLE REGULATIONS

The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 77, 80, 81, 82, 84, 85, 86 (part 86 applies only to Institutions of Higher Education), 97, 98, and 99. In addition 34 CFR part 75 is applicable, except for the provisions in 34 CFR 75.100, 75.101(b), 75.102, 75.103, 75.105, 75.109(a), 75.200, 75.201, 75.209, 75.210, 75.211, 75.217, 75.219, 75.220, and 75.230.

21. REFERENCES

U.S. Department of Education, National Center for Education Statistics, *Schools and Staffing Survey, 1999-2000: Overview of the Data for Public, Private, Public Charter, and Bureau of Indian Affairs Elementary and Secondary Schools*, NCES 2002-313, by Kerry J. Gruber, Susan D. Wiley, Stephen P. Broughman, Gregory A. Strizek, and Marisa Burian-Fitzgerald. Washington, DC: 2002.

U.S. Department of Education, National Center for Education Statistics. *Remedial Education at Degree-Granting Postsecondary Institutions in Fall 2000*, NCES 2004-010, by Basmat Parsad and Laurie Lewis. Project Officer: Bernard Greene. Washington, DC: 2003.